

Fact Sheet

Water Reuse Program

Water Purification Demonstration Project

The City of San Diego • Public Utilities Department

Water Purification | Demonstration Project



Recycled Water

The City of San Diego has limited local water sources and relies on importing approximately 85 to 90 percent of its water supply. In the past, importing water from the Colorado River and Northern California has been a low-cost, reliable option, but environmental stresses and court-ordered pumping restrictions have continued to reduce the amount of water that can be delivered to San Diego. These circumstances and the threat of further limitations on our water supplies have intensified the need for new sources of water. As part of the City's effort to provide a local and sustainable water supply, the Water Purification Demonstration Project is examining the use of advanced water purification technology to provide safe and reliable water for San Diego's future.

The Demonstration Project is the second phase of a process evaluating ways for the City to increase its use of recycled water. The first phase was the City's 2005 Water Reuse Study that identified reservoir augmentation as the preferred option for developing recycled water sources. The Demonstration Project will determine if reservoir augmentation is a feasible option for San Diego.

Reservoir augmentation is a multi-step process that includes:

- Using advanced water purification technology on highly treated wastewater
- Sending the purified water to a reservoir to blend with existing water supplies
- Treating the blended water again to be distributed as drinking water

The Demonstration Project is underway and will conclude in early 2013. During this time, the Advanced Water Purification Facility will be tested for approximately one year and will produce 1 million gallons of purified water per day. A study of the San Vicente Reservoir is being conducted to test the key functions of reservoir augmentation and to determine the viability of a full-scale project. No purified water will be sent to the reservoir during the demonstration phase.

An independent advisory panel of experts is providing oversight on project research to determine (1) if the purification system satisfies all water quality, safety and regulatory requirements of the California Department of Public Health, and (2) the behavior of the reservoir and what will happen if the purified water is added. A summary report detailing the results of the Demonstration Project will be provided to the Mayor and City Council. If deemed technically feasible, and following Mayoral and City Council authorization, a full-scale reservoir augmentation project would be implemented.

Potential benefits of implementing Reservoir Augmentation in San Diego:

- Provide a local and sustainable supply of high-quality drinking water for San Diego
- Improve the quality of water in the San Vicente Reservoir
- Decrease dependence on imported water
- Increase utilization of recycled water
- Provide a supply of water that uses less energy than imported water
- Have a positive impact on the environment by producing less discharge into the ocean and working toward lower carbon emissions

In an effort to keep San Diego citizens informed about this important project, the public outreach program is offering free tours of the Advanced Water Purification Facility (following its completion in 2011), and project presentations will be made to groups upon request. For more information, please call (619)533-7572 or email purewatersd@sanidiego.gov.

The City of San Diego's water resource strategy includes planning, conservation, recycled water, groundwater, water reuse, and watershed and resource protection to help meet future water needs.



THE CITY OF SAN DIEGO

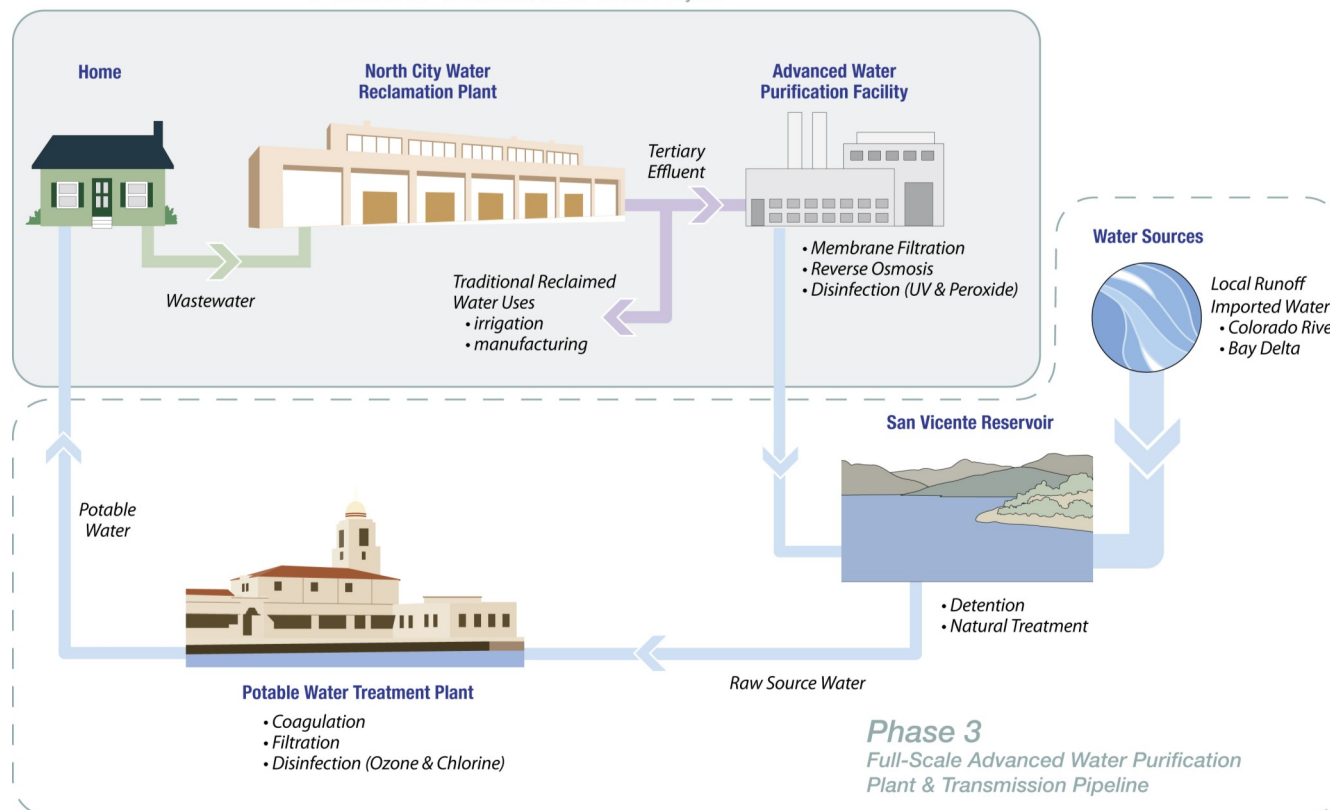


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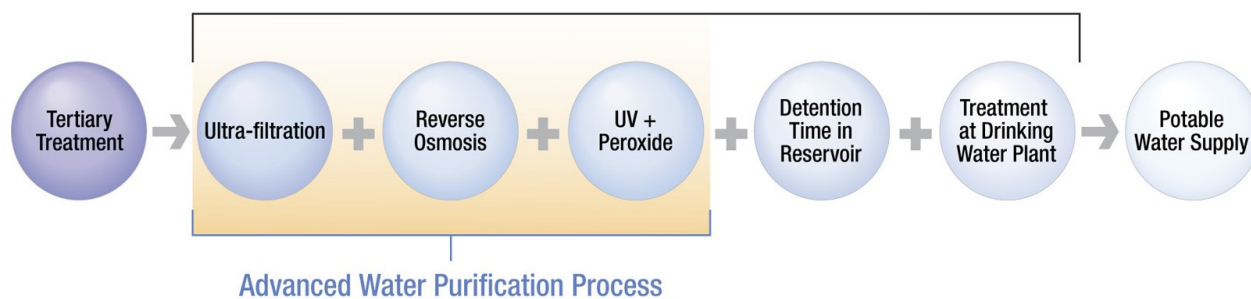
Water Purification Demonstration Project

Advanced Water Purification Process

Phase 2 Demonstration-Scale Project



Multi-Barrier Water Treatment Steps



The multiple barrier approach is a proven means to protect public health. Each barrier or step must have frequent and continuous water quality monitoring. Safeguards are built into the process to insure that a failure or error at any given treatment step would not compromise public health.